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L13 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1990:225542 CAPLUS
DN 112:225542
ED Entered STN: 09 Jun 1990
TI Complex additive to acid electrolytes for producing composite coatings based on nickel and nickel-cobalt alloy
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From: Otkrytiya, Izobret. 1990, (7), 134.
CODEN: URXXAF
DT Patent
LA Russian
IC ICM C25D015-00
CC 72-8 (Electrochemistry)
Section cross-reference(s): 56
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI SU 1544847	A1	19900223	SU 1987-4383954	19871208
PRAI SU 1987-4383954		19871208		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
SU 1544847	ICM	C25D015-00

AB The additive contains a N-containing heterocyclic compound To increase the hardness of the coatings, it addition contains Me cellulose 0.15-2.0 and a betaine of 2-(4-pyridyl)ethanesulfonic acid 0.3-1.5 g/L with the general formula R₂R₁CHCH₂N+C₅H₄(CH₂)₂SO₃⁻, where R₁ = H or OH, R₂ = OH, or CH₂OH, or COOHCH₂N+(CH₂CH₂OH)₃Cl⁻.

ST nickel electroplating additive; cobalt nickel electroplating additive; betaine cobalt nickel electroplating additive; pyridine deriv betaine electroplating additive

IT Pyridinium compounds

RL: USES (Uses)
(sulfoethyl group-containing, hydroxides, inner salts, in electroplating bath for nickel and cobalt -nickel alloys)

IT 7440-02-0, Nickel, uses and miscellaneous 11101-13-6

RL: PROC (Process)
(electrodeposition of, complex additive for)

IT 9004-67-5, Methyl cellulose

RL: PRP (Properties)
(in electroplating bath for nickel and nickel-cobalt alloys)